

CLAIMS

Sub 1
1. A method of absorbing hydrophobic water-immiscible liquids comprising treating the liquid with cellulosic plant material which has been modified to render it relatively more absorbent to hydrophobic water-immiscible liquids by chemical reaction of hydroxyl groups in the lignocellulose material.

2. A method as claimed in claim 1 wherein the modification is esterification.

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3. A method as claimed in claim 2 wherein the esterified material has a weight gain of 5-40% as compared to the unesterified material.

4. A method as claimed in claim 3 wherein the weight gain is 12. to 25%.

sub a1
5. A method as claimed in any one of claims 2 to 4 wherein the acid residues in the esterified material are of the formula Alk-C(O)-O in which Alk is an alkyl group of 1 to 4 carbon atoms.

6. A method as claimed in claim 5 wherein the esterification is acetylation.

sub a2
7. A method as claimed in any one of claims 1 to 6 wherein the plant material comprises lignocellulose.

8. A method as claimed in claim 7 wherein the lignocellulose is thermomechanically pulped fibre.

9. A method as claimed in claim 8 wherein the lignocellulose comprises plant material chips, plant stem segments and/or whole plant stems.

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10. A method as claimed in any one of claims 1 to 6 wherein the source of the lignocellulose is selected from wood, straw, flax, linseed, bagasse, sisal, jute, kenaf, miscanthus, coir, cotton and hemp.

11. A method as claimed in any one of claims 1 to 10 wherein the water-immiscible liquid is an oil.

12. A method as claimed in claim 11 wherein the oil is an oil spillage in water.

13. A method as claimed in claim 12 wherein the modified plant material is spread on to the surface of the water.

14. A method as claimed in claim 12 which comprises drawing through the oil an article which comprises the modified plant material within an outer covering through which the oil may pass.

15. A method as claimed in any one of claims 1 to 10 wherein the water-immiscible liquid is an organic solvent or a pesticide residue.

16. A method as claimed in any one of claims 1 to 10 for the filtration or removal of a hydrophobic water-immiscible liquid from a mixture of such a liquid with water.

17. A method as claimed in any one of claims 1 to 10 for the retention of transformer oil on a paper.

18. A method of absorbing hydrophobic water-immiscible liquids comprising treating the liquid with lignocellulose material which has been modified to render it relatively more absorbent to hydrophobic water-immiscible liquids by chemical reaction of hydroxyl groups in the lignocellulose material.

19. The use as an absorbent of hydrophobic water-immiscible liquids of cellulosic plant material which has been rendered relatively more absorbent to hydrophobic water-immiscible liquids by chemical reaction of hydroxyl groups in the lignocellulose material.

20. An article for absorbing hydrophobic water-immiscible liquids comprising cellulosic plant material which has been rendered relatively more attractive to hydrophobic water-immiscible liquids by chemical reaction of hydroxyl groups in the plant material, and a covering material through which the hydrophobic liquid may pass provided around the modified plant material.

21. An article ~~as~~ claimed in claim 20 in the form of a boom or pillow.

22. A sheet of cellulosic plant material which has been rendered relatively more attractive to hydrophobic water-immiscible liquids by chemical reaction of hydroxyl groups in the plant material.

23. An article as claimed in claim 20 or 21 or a sheet as claimed in claim 22 wherein the plant material comprises lignocellulose.

24. An article or sheet as claimed in claim 23 comprising acetylated lignocellulose.

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Q4 7

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B3

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B4

sub
Q5 7

sub
B6

add 21

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